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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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52940	7590	08/30/2006	EXAMINER	
TODD S. PARKHURST HOLLAND & KNIGHT LLP 131 S. DEARBORN STREET 30TH FLOOR CHICAGO, IL 60603			VU, NGOC K	
			ART UNIT	PAPER NUMBER
			2623	

DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/072,114

Applicant(s)

KIKINIS ET AL.

Examiner

Ngoc K. Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 36-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-38 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/5/02.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-35, drawn to displaying a reduced video image or snapshot in individual image area associated with a selected channel in an EPG, classified in class 725, subclass 41.
 - II. Claims 36-38, drawn to transmitting the multiplexed video streams to a receiver, classified in class 725, subclass 143.
2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the system of group I does not require the use of the system defined in group II. The subcombination has separate utility such as indicated by the different limitations as outlined in the respective grouping of the different claimed inventions as illustrated above.
3. Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.
4. Because these inventions are independent or distinct for the reasons given above and the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Todd Parkhurst on August 4, 2006 a provisional election was made with traverse to prosecute the invention of group I, claims 1-35. Affirmation of this election must be made by applicant in replying to this Office action. Claims 36-38 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Priority

7. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 112 for claims 1-35 of this application. In particular, applicant claims priority to application 09/344,442 as a continuation-in-part, which claims priority to application 09/361,470 as a continuation-in-part, further claims priority to application 09/378,184 as a continuation-in-part, and further claims priority to application 09/378,220 as a continuation-in-part. It is noted that data provided by applicant, particularly, application 09/378,184 as a continuation-in-part, is not consistent PTO records. Furthermore, the disclosures of the above applications fail to disclose the subject matter claimed by applicants in the instant application. Specifically, the disclosures of these applications fail to disclose the features such as an EPG comprising providing a plurality of individual image areas in an EPG display; prompting a viewer to select at least one channel to display in one of the individual image areas; and displaying a reduced video image of real-time

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programming in each of the individual image areas, wherein the reduced video image is associated with the selected channel. An image-oriented EPG apparatus comprising a tuner to tune to a selected channel to receive a video stream; a scene detector, coupled to the tuner, to detect a scene change in the video stream; a shutter function, coupled to the scene detector, to capture a snapshot of the video stream when the scene change is detected; and an EPG, coupled to the tuner, to display the snapshot in an individual image area associated with the selected channel.

Accordingly, applicants are denied the benefit of the 06/25/1999 filing date of CIP of application 09/344442, the 07/27/1999 filing date of CIP of application 09/361470, and the 08/20/1999 of CIP of application 09/378184, and the 08/19/1999 filing date of CIP of application 09/378220.

Specification

8. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

The specification must support the limitations recited in the claims. For instance, the specification must describe the features such as the snapshot is filtered by storing the snapshot in a black and white format as recited in claim 11 and similarly recited in claim 25. The most relevant portion of the original specification describes that the filtered image is generated using filters including a black and white format, an enhanced or reduced contrast, an enhanced or reduced color saturation, etc., before being stored. (Emphasis added). Thus, the original specification fails to provide proper antecedent basis for the claimed subject matter.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 10-13 and 24-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 10 and 24, the terms "**best manner**" in lines 2 and 3, respectively, are relative terms which render the claim indefinite. The term "best manner" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Appropriate correction is required.

Claim Rejections - 35 USC § 101

11. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

12. Claims 31-35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows.

Claims 31-35 defines a machine-readable medium embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.") The examiner suggests amending the claim to embody the program on "computer-readable medium" or equivalent in order to make the claim statutory. Any amendment to the claim should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 1-6, 14, 15, 17-20 and 31-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. (U.S. 6,732,371 B1).

Regarding claim 1, Lee discloses a method for an electronic programming guide (EPG) (see figures 4a-4e) comprising: providing a plurality of individual image areas (PIP areas) in an EPG display (as shown in figures 4a-4e); prompting a viewer to select at least one channel to display in one of the individual image areas (once the program table is shown on the screen, it prompts a viewer to select at least one channel to be displayed on the PIP areas – see figures 4a-4e); and displaying a reduced video image of real-time programming in each of the individual image areas, wherein the reduced video image is associated with the selected channel (for example, still videos of the previous and next programs in the selected channel KBS2 are displayed on the upper portion of the program table in PIP areas – see figures 4a-4c; col. 6, lines 19-39).

Regarding claim 2, Lee discloses that the reduced video image is a snapshot (still video), the snapshot having been captured from a video stream associated with the selected channel (see col. 6, lines 23-27).

Regarding claims 3 and 4, Lee disclose that the still video (snapshot) of previous program or next program is captured by a PIP processor (see figures 1-2; col. 5, lines 10-19 and col. 6, lines 23-27).

Regarding claim 5, Lee teaches that every time a user selects a program in a channel from the program table, a new still video of previous/next program in the selected channel or higher/lower channel program at equal time is captured to update the old still video within a number of seconds, the number of seconds depending on how many of still videos need to be displayed on PIP areas (see col. 6, lines 23-27 and 61-65).

Regarding claim 6, Lee teaches that the snapshot (still video) is determined to be a most presentable snapshot captured from the video stream (see col. 6, lines 23-27).

Regarding claim 14, Lee teaches that the still video is a selected one of the video streams available on a preview channel (i.e., KBS1, KBS2, SBS, etc.), the video stream associated with the selected channel (see figures 4a-4e).

Regarding claim 15, Lee teaches that the selected video stream is associated with the selected channel by an identifying header (from transport packet) that encapsulates the selected video stream (it is noted that each packet includes header) (see col. 4, lines 60-62; col. 5, lines 10-12, 16-19 and 35-39).

Regarding claim 17, Lee discloses an image-oriented electronic programming guide (EPG) (see figures 2 and 4a-4e) apparatus comprising: a tuner (11) to tune to a selected channel to receive a video stream (see col. 4, lines 59-60); a scene detector (within 33), coupled to the tuner, to detect a scene change in the video stream; a shutter function (within 33), coupled to the scene detector, to capture a snapshot of the video stream (still video) when the scene change is detected (previous program or next program) (col. 5, lines 34-38 and 47-51); and an EPG (34), coupled to the tuner, to display the snapshot in an individual image area

associated with the selected channel (for example, still videos of the previous and next programs in the selected channel KBS2 are displayed on the upper portion of the program table in PIP areas – see figures 4a-4c; col. 6, lines 11-15 and 19-39; col. 5, lines 12-19).

Regarding claim 18, Lee further teaches that the apparatus comprising a decoder (23), coupled to the tuner, to decode the video stream until the video stream is steady (see figures 2 and 4a-4e).

Regarding claim 19, Lee further teaches that the apparatus the shutter function (within 33) is capable of capturing a new still video. For example, every time a user selects a program in a channel from the program table, a new still video of previous/next program in the selected channel or higher/lower channel program at equal time is captured to update the old still video within a number of seconds, the number of seconds depending on how many of still videos need to be displayed on PIP areas (see col. 6, lines 23-27 and 61-65).

Regarding claim 20, Lee teaches the apparatus comprising an image improver (22), coupled to the shutter function, to select for display the still video determined to be a most presentable still video captured from the video stream (see figure 2).

Claim 31 recites similar limitations of claim 1, therefore, it is rejected for the same reasons.

Claim 32 recites similar limitations of claim 2, therefore, it is rejected for the same reasons.

Claims 33 and 34 recite similar limitations of claims 3 and 4, therefore, they are rejected for the same reasons.

Claim 35 recites similar limitations of claim 5, therefore, it is rejected for the same reasons.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 7-10, 12, 13, 21-24, and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (U.S. 6,732,371 B1) in view Yeo et al. (U.S. 6,870,573 B2).

Lee does not explicitly teach that the snapshot is determined to be the most presentable snapshot when the snapshot has a best contrast, a median brightness, or a most color saturation, or filtering the snapshot by enhancing a contrast or a color saturation of the snapshot. However, a system allows display parameters 355 to be adjusted in order provide the best images as a subset of the captured frames displayed in a program channel guide as taught by Yeo (see col. 9, lines 9, lines 19-21 and figures 6 & 9). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Lee by adjusting the display parameters to generate a channel program guide having the best images from the captured frames as taught by Yeo in order to provide the high quality of images for better viewing.

17. Claims 11 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (U.S. 6,732,371 B1) in view Yeo et al. (U.S. 6,870,573 B2) and further view of Ito et al. (US 5,914,755 A).

Lee does not teach filtering the snapshot in a black and white format. However, Ito teaches selecting back and white image data by black and white processing unit and temporality

storing the processed data in its internal memory (see col. 5, line 66 to col. 6, line 32; col. 6, lines 48-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Lee by filtering and storing the black and white image data for purpose of providing images in a black and white format.

18. Claims 16 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (U.S. 6,732,371 B1) in view Gould et al. (US 6,331,852 B1).

Lee teaches displaying the still videos on the PIP areas (see figures 4a-4e). Lee does not teach the individual image area comprises at least one surface, and the reduced video image is bound to at least a portion of the at least one surface using a 3D graphics pipeline. However, Gould teaches displaying information thumbnails 110 on a screen. When one of the information thumbnails 110 is selected, a three-dimensional object 92 is displayed in a foreground viewing perspective with respect to the plurality of thumbnails 110. As shown in the upper-right portion of figure 7, the three-dimensional object 92 is a cube having three visible surfaces. On the primary surface, detailed information 112 is displayed (see figure 7; col. 7, line 62 to col. 8, line 15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Lee by including the reduced video image is bound to at least a portion of the at least one surface using a 3D graphics pipeline as taught by Gould in order to present the information in a more visually appealing manner.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Zaslavsky (US 2003/0014752 A1) teaches a method and apparatus for generating a mosaic style electronic program guide. Norsworth (US 6784945 B2) teaches a system and method for providing fast acquire time tuning of multiple signals to present multiple

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simultaneous images. Gutta (US 20020140805 A1) teaches a television program selection system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc K. Vu whose telephone number is 571-272-7306. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Ngoc K. Vu
Primary Examiner
Art Unit 2623

August 29, 2006